

IN THE ABSTRACT:

Please delete the Abstract from the Specification and replace it with the following.

In order to transform an input digital signal (x_n) into one or more output digital signals (y_n) containing even-indexed samples (y_{2n}) and odd-indexed samples (y_{2i+n}), this filtering method includes at least one iteration which contains an operation of modifying even-indexed samples (y_{2n}) by a function (R) of weighted odd-indexed samples(y_{2n+1}), and an operation of modifying odd-indexed samples (y_{2n+1}) by a function (R) of weighted even-indexed samples ($\beta_{0,j} \cdot (y_{2n} - y_{2n+2})$). The weighted samples are obtained by at least one weighting operation. At least one of the weighting operations is applied to the difference between two consecutive even-indexed samples.